SB761
U7R6
75-27

Forest Pest Management

PEST CONTROL
EVALUATIONS R2-75-27

DWARF MISTLETOE
CONTROL PROJECTS

ROUTT NATIONAL FOREST
NORTH PARK RANGER DISTRICT

April 1975

Rocky Mountain Region

LIBRARY
JAN 9 1976
ROCKY MOUNTAIN STATION

U.S. Department of Agriculture Forest Service

PEST CONTROL
EVALUATIONS R2-75-27

DWARF MISTLETOE CONTROL PROJECTS

ROUTT NATIONAL FOREST
NORTH PARK RANGER DISTRICT

April 1975

Prepared by: Donald H. Brown
Pathologist

Approved by:

GEORGE L. DOWNING
Staff Director
Forest Pest Management

S. H. HANKS
Deputy Regional Forester
State and Private Forestry

POST CONTROL EVALUATIONS

Dwarf Mistletoe Control Projects

Routt National Forest
North Park Ranger District

INTRODUCTION

In F.Y. 1972, three lodgepole pine stands, one in Porcupine Creek and two in Snyder Creek, infected with lodgepole pine dwarf mistletoe were thinned to release the trees and reduce the incidence of dwarf mistletoe. Prior to thinning, which was accomplished through a private contractor, the stands were surveyed to determine the incidence of dwarf mistletoe and to collect data on stand structure. This information was used to obtain yield projections through the LPMIST simulation yield program.[1/] The pre-treatment information including the yield projections for two of the three stands, is contained in previously issued biological evaluation reports for Porcupine Creek[2/] and Snyder Creek.[3/] The biological evaluation for Snyder Creek includes only one stand, designated Snyder I. This report includes information for Snyder I and also a second stand designated Snyder 2. In all three stands, the contractor or his workers were required to select leave trees according to the specifications in the contract. The contract was administered in the usual manner by district personnel.

Between 1972 and 1974, the three stands were surveyed after thinning to determine the incidence of dwarf mistletoe and to collect stand data. Yield projections for each stand were obtained by using LPMIST in the same way as with the pre-treatment information with one exception. For the post-treatment projections the initial thinning was eliminated since this had already been accomplished on the ground for each stand.

1/ Clifford A. Myers, Frank G. Hawksworth, and James L. Stewart. Simulating yields of managed, dwarf mistletoe-infested lodgepole pine stands. USDA Forest Service Res. Pub. RM-72, 15p., 1971.

2/ Biological Evaluation, Dwarf Mistletoe, Routt National Forest, North Park Ranger District, USDA Forest Service, Mimeograph Report, April, 1972.

3/ Biological Evaluation, Dwarf Mistletoe, Routt National Forest, North Park Ranger District, Snyder Creek, USDA Forest Service, Mimeographed Report, R2-72-5, May, 1972.

The purpose of this report is to compare and discuss the pre-treatment and post-treatment yield projections based on pre- and post-treatment stand conditions for each stand. Of particular interest is a comparison of the projected and the actual disease status and stand structure.

DISCUSSION

A summary of pre-treatment and post-treatment data for each stand is shown in Table I. The pre-treatment and post-treatment yield projections for each of the three stands are shown in the yield tables attached to this report. The same sequence of management variables for re-entry cycles and growing stock levels were used in each set of projections. The first table of each set of pre- and post-treatment yield tables (i.e., tables A-1, A-10, B-1, B-6, C-1, & C-6) shows the stand condition and expected yield if left unthinned. The first line entry of each table, whether pre-treatment or post-treatment, is a description of the actual stand at the time of each survey. All other entries in the yield tables are a description of the stand as projected by the simulation program. Double entries at the same stand age indicate a planned entry into the stand for the purpose of cutting trees. An examination of the second line of the first double entry in the pre-treatment table and first line of the first double entry of the comparable post-treatment table for each stand, gives a comparison between the projected and actual stand structures following treatment of thinning. For example, compare table A-2 with table A-11. A considerable contrast, especially in expected volumes, is readily apparent between the pre- and post-treatment projections.

TABLE I

DESCRIPTION OF STAND CONDITIONS BEFORE AND AFTER THINNING FOR DWARF MISTLETOE CONTROL PROJECTS

Project Location	Age when treated (years)	Trees/Acre before treat. (no.)	Trees/Acre after treat. (no.)	Trees Infected with DM before treat. (%)	Trees Infected with DM after treat. (%)	Project Acres (no.)	Cost/ Acre (dollars)	F. Y. Financed
Porcupine Creek	27	2680	429	27	51	95	38	1971
Snyder I	70	4330	529	34	30	125	70	1971
Snyder II	70	880	398	7	30	20	1/	----

1/ Accomplished through a commercial thinning.

There are several possible explanations for these discrepancies. The most obvious one is quality control during the thinning operation. The higher incidence of dwarf mistletoe after than before thinning, except for Snyder I, as shown in Table I, would tend to support this possibility. This could have resulted from the incorrect selection of leave trees by the tree cutters. Another possibility is that estimates of the incidence of dwarf mistletoe both before and after treatment were inaccurate. This is a real possibility for Snyder I and II where the pre-treatment survey consisted of only six sample plots. A third possible explanation is associated with the simulation program. Specific pre-treatment yield projections as requested by district personnel for each stand required a special adjustment of the program. The adjustment resulted in a reduction of the residual stocking to a much lower level than is normally used in the program. This alteration in the program for each stand also resulted in a change in the type of cut in the first entry. Instead of the normal program procedure of cutting the dominant and co-dominant trees, which usually have the highest incidence of dwarf mistletoe, the projections show many trees being cut from the lower crown classes. The post-treatment survey and yield projections indicate that perhaps this was the way the stands were actually cut. This method of cutting would leave a considerable number of infected trees.

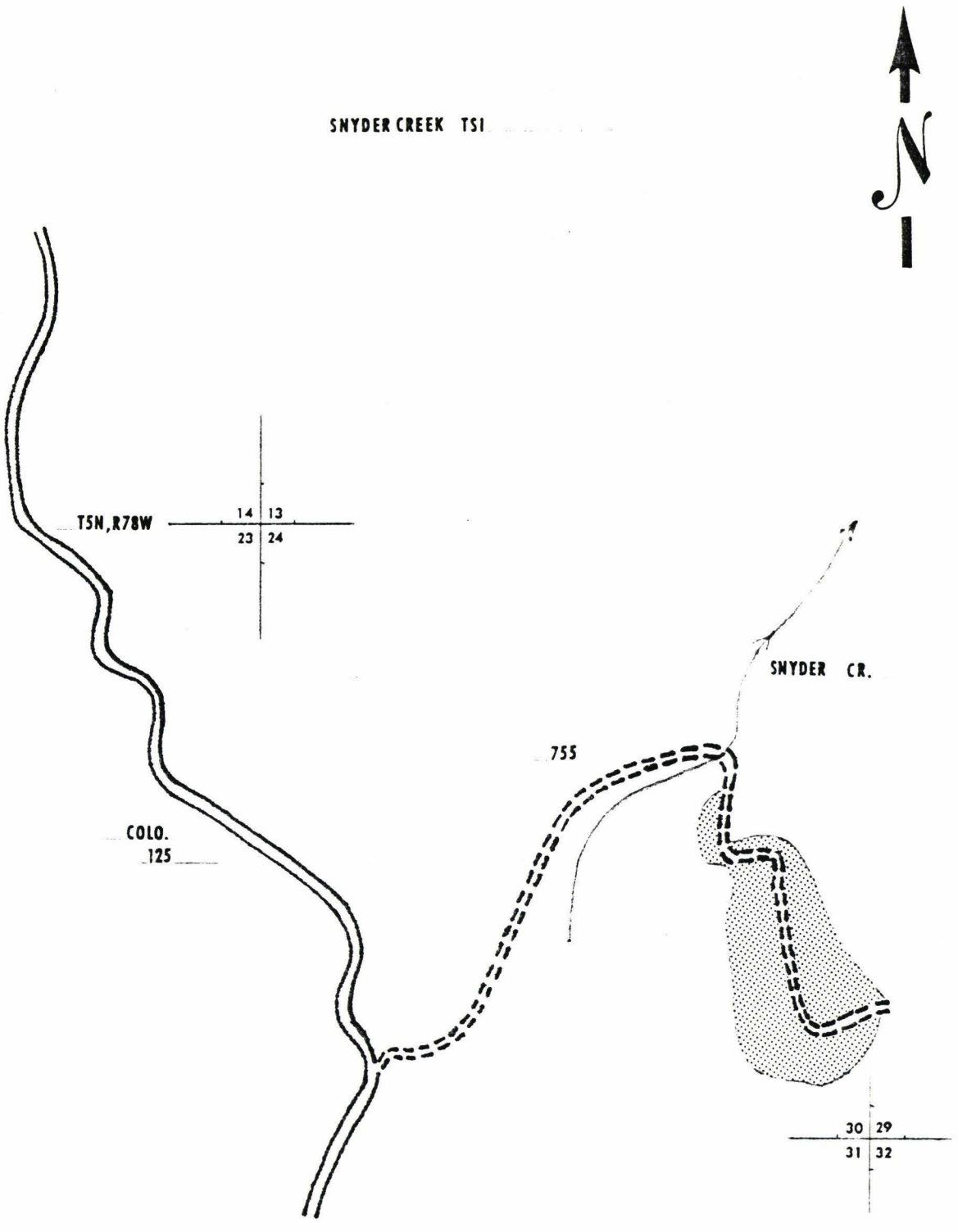
CONCLUSION

Even though the projected yields from the post-treatment data are less than initially expected, a minimum of 5900 bd. ft/acre has been projected. According to the tables minimum sawtimber volumes for Snyder I occur at 150 years of age. Also, optimum sawtimber yield for Porcupine Creek will occur at age 90 instead of age 117 as initially projected. The post-treatment projections show no intermediate cuts for any of the stands.

In weighing the evidence and possible explanations for the discrepancies between the pre-treatment projections and post-treatment stand conditions, we conclude that one, some or all of the possibilities could have contributed to the results. The reader should keep in mind that this report concerns stands used in one of the first practical or operational applications of the LPMIST program.

Efforts to improve on the field application of LPMIST include plans for an administrative study where thinning will be conducted under carefully controlled and documented conditions.

SNYDER CREEK TS1



PORCUPINE CREEK

TSI

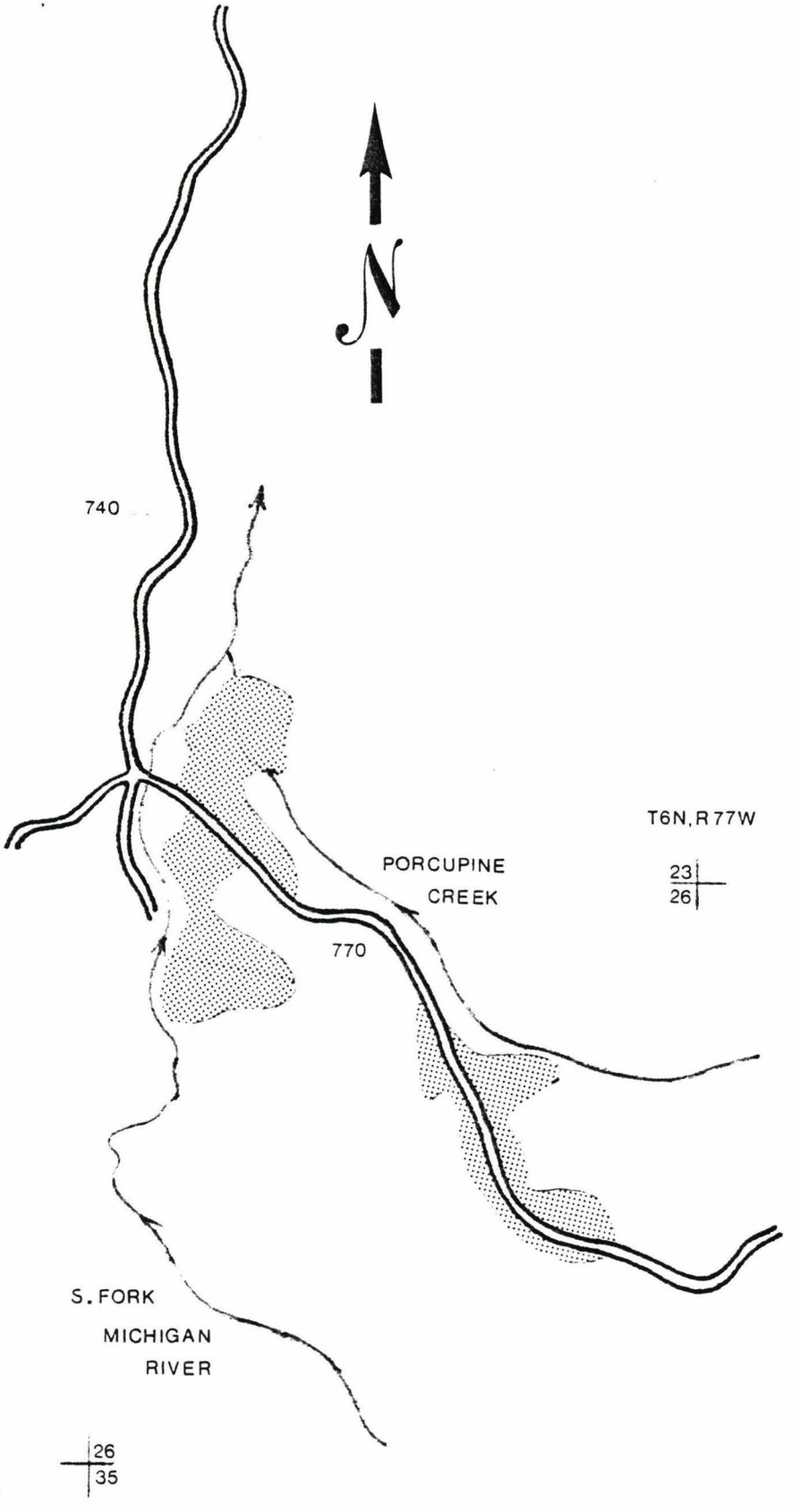


Figure 1. Snyder I TSI project before thinning.

Figure 2. Snyder I TSI project 3 years after thinning.

Figure 3. Snyder II TSI project 3 years after thinning.

Figure 4. Porcupine Creek TSI project 3 years after thinning.

APPENDIX 1

Pre-treatment and Post-treatment LPMIST Yield Tables

The tables are arranged as follows:

Porcupine Creek

Pre-treatment projections	Tables: A-1 thru A-9
Post-treatment projections	Tables: A-10 thru A-18

Snyder I

Pre-treatment projections	Tables: B-1 thru B-5
Post-treatment projections	Tables: B-6 thru B-10

Snyder II

Pre-treatment projections	Tables: C-1 thru C-5
Post-treatment projections	Tables: C-6 thru C-10

The principle differences between tables within any treatment group are thinning intensity levels and cutting cycle intervals.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 60

FOREST ROUTT
AREA PORCUPINE CREEK

ENTIRE STAND

STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0
37	2420	96	2.7	29	1240	0	0
47	2152	128	3.3	32	1890	0	0
57	1873	148	3.8	39	2710	0	0
67	1587	153	4.2	44	3250	0	0
77	1308	151	4.6	48	3570	0	0
87	1048	143	5.0	52	3650	640	0
97	816	135	5.5	54	3640	1220	0
107	720	137	5.9	56	3840	1780	0
117	616	133	6.3	58	3840	2270	0
127	516	123	6.6	58	3590	2460	0

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 6.0 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 60
THINNING INTENSITY- SUBSEQUENT- 70.

FOREST ROUTT
AREA PORCUPINE CREEK

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
—27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	426	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
57	221	56	6.8	42	1160	860	0	198	41	800	420	0
67	218	72	7.8	47	1710	1460	0					
77	216	89	8.7	52	2320	2100	8600					
87	214	105	9.5	55	2940	2720	11300					
87	133	70	9.8	56	1970	1830	7700	81	35	970	890	3600
97	128	81	10.8	59	2440	2300	9800					
107	125	93	11.7	62	2880	2720	12000					
117	119	103	12.6	64	3250	3080	13900					
117	119	103	12.6	64	3250	3080	13900	0	0	0	0	0
127	110	108	13.4	66	3460	3290	15200					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 4.4 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 60
THINNING INTENSITY- SUBSEQUENT- 80.

FOREST ROUTT
AREA PORCUPINE CREEK

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	436	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
57	253	64	6.8	41	1320	980	0	166	33	640	300	0
67	251	83	7.8	47	1960	1670	0					
77	250	101	8.6	51	2610	2350	9600					
87	245	118	9.4	55	3280	3030	12600					
87	155	80	9.7	56	2240	2080	8700	90	38	1040	950	3900
97	151	93	10.6	59	2750	2590	11000					
107	146	103	11.4	62	3190	3010	13100					
117	137	111	12.2	64	3500	3320	14800					
117	137	111	12.2	64	3500	3320	14800	0	0	0	0	0
127	125	115	13.0	66	3680	3500	16000					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 4.7 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 60
THINNING INTENSITY- SUBSEQUENT- 90.

FOREST AREA ROUTT PORCUPINE CREEK

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2690	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	426	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
57	289	71	6.7	41	1460	1050	0	130	26	500	230	0
67	287	90	7.6	47	2120	1770	0					
77	286	110	8.4	51	2830	2530	10400					
87	277	125	9.1	55	3450	3170	13100					
87	277	125	9.1	55	3450	3170	13100	0	0	0	0	0
97	261	134	9.7	58	3900	3610	15200					
107	239	138	10.3	60	4190	3930	16600					
117	213	136	10.8	62	4230	3990	17100					
117	213	136	10.8	62	4230	3990	17100	0	0	0	0	0
127	184	128	11.3	63	4040	3810	16600					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 6.0 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE — FOREST ROUTT
SITE INDEX 60 — AREA PORCUPINE CREEK
THINNING INTENSITY- SUBSEQUENT- 70.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	426	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
67	415	117	7.2	46	2700	2140	0					
67	194	61	7.6	47	1450	1210	0	221	56	1250	930	0
77	191	77	8.6	52	2010	1810	7400					
87	188	93	9.5	56	2590	2400	10000					
97	182	105	10.3	59	3110	2920	12300					
107	171	115	11.1	61	3530	3330	14400					
107	171	115	11.1	61	3530	3330	14400	0	0	0	0	0
117	155	118	11.8	63	3710	3510	15500					
127	138	116	12.4	65	3670	3480	15600					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 5.4 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 60 AREA PORCUPINE CREEK
THINNING INTENSITY- SUBSEQUENT- 80.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	426	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
67	415	117	7.2	46	2700	2140	0					
67	226	69	7.5	47	1640	1350	0	189	48	1060	790	0
77	224	86	8.4	51	2230	2000	8100					
87	221	102	9.2	55	2840	2610	10800					
97	212	116	10.0	58	3400	3180	13400					
107	198	124	10.7	61	3790	3560	15200					
107	198	124	10.7	61	3790	3560	15200	0	0	0	0	0
117	179	127	11.4	63	3970	3750	16400					
127	157	123	12.0	64	3910	3700	16400					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 5.6 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 60
THINNING INTENSITY- SUBSEQUENT- 90.

FOREST ROUTT
AREA PORCUPINE CREEK

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	426	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
67	415	117	7.2	46	2700	2140	0					
67	254	78	7.5	47	1830	1510	0	161	39	870	630	0
77	252	97	8.4	51	2500	2240	9100					
87	247	114	9.2	55	3160	2910	12000					
97	235	126	9.9	58	3670	3440	14500					
107	218	134	10.6	60	4070	3830	16300					
107	218	134	10.6	60	4070	3830	16300	0	0	0	0	0
117	196	134	11.2	62	4190	3950	17100					
127	171	128	11.7	64	4030	3810	16800					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 5.8 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE — FOREST AREA ROUTT PORCUPINE CREEK

SITE INDEX 60

THINNING INTENSITY- SUBSEQUENT- 70.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	426	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
67	415	117	7.2	46	2700	2140	0					
77	400	133	7.8	50	3350	2860	0					
77	400	133	7.8	50	3350	2860	0	0	0	0	0	0
87	375	144	8.4	54	3900	3480	14300					
97	341	147	8.9	57	4180	3820	15700					
107	301	145	9.4	58	4260	3940	16400					
117	258	135	9.8	60	4070	3770	15900					
127	216	123	10.2	61	3740	3510	14700					
127	216	123	10.2	61	3740	3510	14700	0	0	0	0	0

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 6.0 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PRE-TREATMENT PROJECTIONS

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 60
THINNING INTENSITY- SUBSEQUENT- 70.

FOREST ROUTT
AREA PORCUPINE CREEK

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
27	2680	33	1.5	22	300	0	0					
27	436	21	3.0	24	250	0	0	2244	12	50	0	0
37	436	47	4.5	31	710	0	0					
47	421	72	5.6	34	1220	450	0					
57	419	97	6.5	41	1960	1280	0					
67	415	117	7.2	46	2700	2140	0					
77	400	133	7.8	50	3350	2860	0					
87	375	144	8.4	54	3900	3480	14300					
87	375	144	8.4	54	3900	3480	14300	0	0	0	0	0
97	341	147	8.9	57	4180	3820	15700					
107	301	145	9.4	58	4260	3940	16400					
117	258	135	9.8	60	4070	3770	15900					
127	216	123	10.2	61	3740	3510	14700					

DWARF MISTLETOE INFECTION STARTED AT AGE 22. AND RATING WAS 6.0 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60, 999-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
30	1.6	429	18	2.8	23	205	0	0	0	0
30	1.6	429	18	2.8	23	205	0		0	
40	2.3	418	38	4.1	29	560	0	0	0	0
50	3.0	409	56	5.0	33	913	0	0	0	0
60	3.7	389	71	5.8	39	1380	595	10	0	0
70	4.4	359	85	6.6	43	1844	1266	18	0	0
80	5.1	322	94	7.3	46	2182	1755	22	0	0
90	5.8	280	95	7.9	49	2334	2011	22	0	0
100	6.0	236	91	8.4	50	2291	2047	20	8061	84
110	6.0	198	86	8.9	51	2206	2016	18	8244	75
120	6.0	166	78	9.3	52	2058	1900	16	7832	65

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0

TOTAL YIELDS 205 0 0

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60, 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
30	1.5	429	18	2.8	23	205	0	0	0	0					
30	1.6	429	18	2.8	23	205	0		0		0	0	0	0	0
40	2.3	418	42	4.3	29	616	0	0	0	0					
50	3.0	409	65	5.4	33	1065	323	6	0	0					
60	3.7	389	84	6.3	39	1629	962	16	0	0					
60	3.7	389	84	6.3	39	1629	962		0		0	0	0	0	0
70	4.4	359	99	7.1	43	2134	1665	24	0	0					
80	5.1	322	107	7.8	46	2491	2126	27	0	0					
90	5.8	280	105	8.3	49	2577	2288	25	9374	104					
90	5.8	280	105	8.3	49	2577	2288		9374		0	0	0	0	0
100	6.0	236	100	8.8	50	2515	2290	23	9368	94					
110	6.0	198	91	9.2	51	2357	2172	20	8944	81					
120	6.0	166	83	9.6	52	2193	2032	17	8470	71					
120	6.0	166	83	9.6	52	2193	2032		8470		0	0	0	0	0
							TOTAL YIELDS						2193	2032	8470

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60. 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 80.

		ENTIRE STAND BEFORE AND AFTER THINNING								PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
30	1.6	429	18	2.8	23	205	0	0	0	0					
30	1.6	429	18	2.8	23	205	0		0		0	0	0	0	0
40	2.3	418	42	4.3	29	616	0	0	0	0					
50	3.0	409	65	5.4	33	1065	323	6	0	0					
60	3.7	389	84	6.3	39	1629	962	16	0	0					
60	3.7	389	84	6.3	39	1629	962		0		0	0	0	0	0
70	4.4	359	99	7.1	43	2134	1665	24	0	0					
80	5.1	322	107	7.8	46	2491	2126	27	0	0					
90	5.8	280	105	8.3	49	2577	2288	25	9374	104					
90	5.8	280	105	8.3	49	2577	2288		9374		0	0	0	0	0
100	6.0	236	100	8.8	50	2515	2290	23	9368	94					
110	6.0	198	91	9.2	51	2357	2172	20	8944	81					
120	6.0	166	83	9.6	52	2193	2032	17	8470	71					
120	6.0	166	83	9.6	52	2193	2032		8470		0	0	0	0	0
									TOTAL YIELDS			2193		2032	8470

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60. 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 90.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
30	1.6	429	18	2.8	23	205	0	0	0	0
30	1.6	429	18	2.8	23	205	0		0	
40	2.3	418	42	4.3	29	616	0	0	0	0
50	3.0	409	65	5.4	33	1065	323	6	0	0
60	3.7	389	84	6.3	39	1629	962	16	0	0
60	3.7	389	84	6.3	39	1629	962		0	
70	4.4	359	99	7.1	43	2134	1865	24	0	0
80	5.1	322	107	7.8	46	2491	2126	27	0	0
90	5.8	280	105	8.3	49	2577	2288	25	9374	104
90	5.8	280	105	8.3	49	2577	2288		9374	
100	6.0	236	100	8.8	50	2515	2290	23	9368	94
110	6.0	198	91	9.2	51	2357	2172	20	8944	81
120	6.0	166	83	9.6	52	2193	2032	17	8470	71
120	6.0	166	83	9.6	52	2193	2032		8470	

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0
0	0	0	0	0

TOTAL YIELDS	2193	2032	8470

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60, 40-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
30	1.6	429	18	2.8	23	205	0	0	0	0
30	1.6	429	18	2.8	23	205	0		0	
40	2.3	418	42	4.3	29	616	0	0	0	0
50	3.0	409	65	5.4	33	1065	323	6	0	0
60	3.7	389	84	6.3	39	1629	962	16	0	0
70	4.4	359	99	7.1	43	2134	1665	24	0	0
70	4.4	359	99	7.1	43	2134	1665		0	
80	5.1	322	107	7.8	46	2491	2126	27	0	0
90	5.8	280	105	8.3	49	2577	2289	25	9374	104
100	6.0	236	100	8.8	50	2515	2290	23	9368	94
110	6.0	198	91	9.2	51	2357	2172	20	8944	81
110	6.0	198	91	9.2	51	2357	2172		8944	
120	6.0	166	83	9.6	52	2193	2032	17	8470	71

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

TOTAL YIELDS 2357 2172 8944

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET.

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60. 40-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 80.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
30	1.6	429	18	2.8	23	205	0	0	0	0
30	1.6	429	18	2.8	23	205	0		0	
40	2.3	418	42	4.3	29	616	0	0	0	0
50	3.0	409	65	5.4	33	1065	323	6	0	0
60	3.7	389	84	6.3	39	1629	962	16	0	0
70	4.4	359	99	7.1	43	2134	1665	24	0	0
70	4.4	359	99	7.1	43	2134	1665		0	
80	5.1	322	107	7.8	46	2491	2126	27	0	0
90	5.8	280	105	8.3	49	2577	2288	25	9374	104
100	6.0	236	100	8.8	50	2515	2290	23	9368	94
110	6.0	198	91	9.2	51	2357	2172	20	8944	81
110	6.0	198	91	9.2	51	2357	2172		8944	
120	6.0	166	83	9.6	52	2193	2032	17	8470	71

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0
0	0	0	0	0
TOTAL YIELDS		2357	2172	8944

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

POST-TREATMENT PROJECTIONS

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60. 40-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 99%. SUBSEQUENT- 90.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
30	1.6	429	18	2.8	23	205	0	0	0	0					
30	1.6	429	18	2.8	23	205	0		0		0	0	0	0	0
40	2.3	418	42	4.3	29	616	0	0	0	0					
50	3.0	409	65	5.4	33	1065	323	6	0	0					
60	3.7	389	84	6.3	39	1629	962	16	0	0					
70	4.4	359	99	7.1	43	2134	1665	24	0	0					
70	4.4	359	99	7.1	43	2134	1665		0		0	0	0	0	0
80	5.1	322	107	7.8	46	2491	2126	27	0	0					
90	5.8	280	105	8.3	49	2577	2288	25	9374	104					
100	6.0	236	100	8.8	50	2515	2290	23	9368	94					
110	6.0	198	91	9.2	51	2357	2172	20	8944	81					
110	6.0	198	91	9.2	51	2357	2172		8944		0	0	0	0	0
120	6.0	166	83	9.6	52	2193	2032	17	8470	71					
									TOTAL YIELDS			2357		2172	8944

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

SAPF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60. 50-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

		ENTIRE STAND BEFORE AND AFTER THINNING								PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
30	1.6	429	18	2.8	23	205	0	0	0	0					
30	1.6	429	18	2.8	23	205	0		0		0	0	0	0	0
40	2.3	418	42	4.3	29	616	0	0	0	0					
50	3.0	409	65	5.4	33	1065	323	6	0	0					
60	3.7	389	84	6.3	39	1629	962	16	0	0					
70	4.4	359	99	7.1	43	2134	1665	24	0	0					
80	5.1	322	107	7.8	46	2491	2126	27	0	0					
80	5.1	322	107	7.8	46	2491	2126		0		0	0	0	0	0
90	5.8	280	105	8.3	49	2577	2289	25	9374	104					
100	6.0	236	100	8.8	50	2515	2290	23	9368	94					
110	6.0	198	91	9.2	51	2357	2172	20	8944	81					
120	6.0	166	83	9.6	52	2193	2032	17	8470	71					
						TOTAL YIELDS					2491		2126		0

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

PORCUPINE CR. N.P. ROUTT N.F.

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 60, 60-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
30	1.6	429	18	2.8	23	205	0	0	0	0
30	1.6	429	18	2.8	23	205	0		0	
40	2.3	418	42	4.3	29	616	0	0	0	0
50	3.0	409	65	5.4	33	1065	323	6	0	0
60	3.7	389	84	6.3	39	1629	962	16	0	0
70	4.4	359	99	7.1	43	2134	1665	24	0	0
80	5.1	322	107	7.8	46	2491	2126	27	0	0
90	5.8	280	105	8.3	49	2577	2288	25	9374	104
90	5.8	280	105	8.3	49	2577	2288		9374	
100	6.0	236	100	8.8	50	2515	2290	23	9368	94
110	6.0	198	91	9.2	51	2357	2172	20	8944	81
120	6.0	166	83	9.6	52	2193	2032	17	8470	71

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0
0	0	0	0	0

	TREES			
TOTAL YIELDS	2577	2288		9374

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 14. AND RATING WAS 6.0 AT AGE 127.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE
SITE INDEX 55

FOREST ROUTT
AREA SNYDER 1

ENTIRE STAND

STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	4330	104	2.1	21	820	0	0
80	3887	143	2.6	25	1460	0	0
90	3427	168	3.0	28	2060	0	0
100	2946	175	3.3	31	2450	0	0
110	2465	174	3.6	34	2700	0	0
120	2006	166	3.9	36	2800	0	0
130	1586	153	4.2	37	2730	0	0

DWARF MISTLETOE INFECTION STARTED AT AGE 60. AND RATING WAS 4.4 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 1
THINNING INTENSITY- SUBSEQUENT- 70.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	4330	104	2.1	21	820	0	0					
70	438	26	3.3	23	290	0	0	3894	78	530	0	0
80	427	49	4.6	27	660	0	0					
90	422	72	5.6	30	1090	400	0					
100	420	94	6.4	33	1560	970	0					
100	225	55	6.7	34	940	680	0	195	39	620	290	0
110	222	72	7.7	37	1320	1120	0					
120	220	87	8.5	39	1690	1520	6200					
130	218	103	9.3	41	2110	1940	8000					

DWARF MISTLETOE INFECTION STARTED AT AGE 60. AND RATING WAS 2.7 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 1
THINNING INTENSITY- SUBSEQUENT- 80.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	4330	104	2.1	21	820	0	0					
70	436	26	3.3	23	290	0	0	3894	78	530	0	0
80	427	49	4.6	27	660	0	0					
90	422	72	5.6	30	1090	400	0					
100	420	94	6.4	33	1560	970	0					
100	257	63	6.7	34	1070	770	0	163	31	490	200	0
110	255	80	7.6	37	1470	1230	0					
120	254	98	8.4	39	1900	1690	6900					
130	249	112	9.1	41	2290	2100	8700					

DWARF MISTLETOE INFECTION STARTED AT AGE 60. AND RATING WAS 3.0 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 1
THINNING INTENSITY- SUBSEQUENT- 90.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	4330	104	2.1	21	820	0	0					
70	436	26	3.3	23	290	0	0	3894	78	530	0	0
80	427	49	4.6	27	660	0	0					
90	422	72	5.6	30	1090	400	0					
100	420	94	6.4	33	1560	970	0					
100	294	70	6.6	34	1180	810	0	126	24	380	160	0
110	292	87	7.4	36	1590	1290	0					
120	291	104	8.1	38	2010	1760	7200					
130	282	119	8.8	40	2410	2190	9000					

DWARF MISTLETOE INFECTION STARTED AT AGE 60. AND RATING WAS 3.2 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 1
THINNING INTENSITY- SUBSEQUENT- 70.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	4330	104	2.1	21	820	0	0					
70	436	26	3.3	23	290	0	0	3894	78	530	0	0
80	427	49	4.6	27	660	0	0					
90	422	72	5.6	30	1090	400	0					
100	420	94	6.4	33	1560	970	0					
110	416	114	7.1	36	2040	1590	0					
120	401	130	7.7	38	2450	2070	0					
120	401	130	7.7	38	2450	2070	0	0	0	0	0	0
130	376	138	8.2	40	2730	2400	9900					

DWARF MISTLETOE INFECTION STARTED AT AGE 60. AND RATING WAS 4.1 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

SNYDER I N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 999-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
70	1.3	529	31	3.3	28	432	0	0	0	0
70	1.3	529	31	3.3	28	432	0		0	
80	2.0	519	50	4.2	32	790	0	0	0	0
90	2.7	513	70	5.0	35	1227	0	0	0	0
100	3.4	495	88	5.7	38	1662	663	7	0	0
110	4.1	464	100	6.3	40	2019	1193	11	0	0
120	4.8	423	110	6.9	42	2309	1738	14	0	0
130	5.5	374	109	7.3	43	2362	1900	15	0	0
140	6.0	321	104	7.7	44	2307	1948	14	0	0
150	6.0	269	94	8.0	45	2118	1840	12	0	0
160	6.0	225	85	8.3	45	1932	1715	11	7008	44
170	6.0	188	76	8.6	46	1753	1582	9	6448	38
180	6.0	157	68	8.9	46	1584	1447	8	5907	33

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0

	TOTAL YIELDS	1584	1447	5907

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

DFIN

SNYDER I N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55, 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	1.3	529	31	3.3	28	432	0	0	0	0					
70	1.3	529	31	3.3	28	432	0		0		0	0	0	0	0
80	2.0	519	57	4.5	32	908	0	0	0	0					
90	2.7	514	82	5.4	35	1434	435	5	0	0					
100	3.4	496	101	6.1	38	1907	1005	10	0	0					
100	3.4	496	101	6.1	38	1907	1005		0		0	0	0	0	0
110	4.1	465	114	6.7	40	2289	1653	15	0	0					
120	4.8	424	120	7.2	42	2520	1998	17	0	0					
130	5.5	375	118	7.6	43	2567	2145	17	0	0					
130	5.5	375	118	7.6	43	2567	2145		0		0	0	0	0	0
140	6.0	322	110	7.9	44	2435	2098	15	0	0					
150	6.0	270	97	8.1	45	2179	1908	13	7839	52					
160	6.0	226	87	8.4	45	1987	1775	11	7248	45					
160	6.0	226	87	8.4	45	1987	1775		7248		0	0	0	0	0
170	6.0	189	78	8.7	46	1803	1635	10	6668	39					
180	6.0	158	70	9.0	46	1630	1494	8	6109	34					
						TOTAL YIELDS							1630	1494	6109

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

SNYDER I N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 80.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
70	1.3	529	31	3.3	28	432	0	0	0	0
70	1.3	529	31	3.3	28	432	0		0	
80	2.0	519	57	4.5	32	908	0	0	0	0
90	2.7	514	82	5.4	35	1434	435	5	0	0
100	3.4	496	101	6.1	38	1907	1005	10	0	0
100	3.4	496	101	6.1	38	1907	1005		0	
110	4.1	465	114	6.7	40	2289	1653	15	0	0
120	4.8	424	120	7.2	42	2520	1998	17	0	0
130	5.5	375	118	7.6	43	2567	2145	17	0	0
130	5.5	375	118	7.6	43	2567	2145		0	
140	6.0	322	110	7.9	44	2435	2098	15	0	0
150	6.0	270	97	8.1	45	2179	1908	13	7839	52
160	6.0	226	87	8.4	45	1987	1775	11	7248	45
160	6.0	226	87	8.4	45	1987	1775		7248	
170	6.0	189	78	8.7	46	1803	1635	10	6668	39
180	6.0	158	70	9.0	46	1630	1494	8	6109	34

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

TOTAL YIELDS	1630	1494	6109

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

SNYDER T N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55, 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 90.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	1.3	529	31	3.3	28	432	0	0	0	0					
70	1.3	529	31	3.3	28	432	0		0		0	0	0	0	0
80	2.0	519	57	4.5	32	908	0	0	0	0					
90	2.7	514	82	5.4	35	1434	435	5	0	0					
100	3.4	496	101	6.1	38	1907	1005	10	0	0					
100	3.4	496	101	6.1	38	1907	1005		0		0	0	0	0	0
110	4.1	465	114	6.7	40	2289	1652	15	0	0					
120	4.8	424	120	7.2	42	2520	1998	17	0	0					
130	5.5	375	118	7.6	43	2567	2145	17	0	0					
130	5.5	375	118	7.6	43	2567	2145		0		0	0	0	0	0
140	6.0	322	110	7.9	44	2435	2098	15	0	0					
150	6.0	270	97	8.1	45	2179	1908	13	7839	52					
160	6.0	226	87	8.4	45	1987	1775	11	7248	45					
160	6.0	226	87	8.4	45	1987	1775		7248		0	0	0	0	0
170	6.0	189	78	8.7	46	1803	1635	10	6668	39					
180	6.0	158	70	9.0	46	1630	1494	8	6109	34					
							TOTAL YIELDS					1630		1494	6109

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

POST-TREATMENT PROJECTIONS

SNYDER I N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 50-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	1.3	529	31	3.3	28	432	0	0	0	0					
70	1.3	529	31	3.3	28	432	0		0		0	0	0	0	0
80	2.0	519	57	4.5	32	908	0	0	0	0					
90	2.7	514	82	5.4	35	1434	435	5	0	0					
100	3.4	496	101	6.1	38	1907	1005	10	0	0					
110	4.1	465	114	6.7	40	2289	1653	15	0	0					
120	4.8	424	120	7.2	42	2520	1998	17	0	0					
120	4.8	424	120	7.2	42	2520	1998		0		0	0	0	0	0
130	5.5	375	118	7.6	43	2567	2145	17	0	0					
140	6.0	322	110	7.9	44	2435	2098	15	0	0					
150	6.0	270	97	8.1	45	2179	1908	13	7839	52					
160	6.0	226	87	8.4	45	1987	1775	11	7248	45					
170	6.0	189	78	8.7	46	1803	1635	10	6668	39					
170	6.0	189	78	8.7	46	1803	1635		6668		0	0	0	0	0
180	6.0	158	70	9.0	46	1630	1494	8	6109	34					
						TOTAL YIELDS						1630		1494	6109

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 2

ENTIRE STAND

STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANT-ABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	880	97	4.5	28	1320	0	0
80	866	123	5.1	32	1920	400	0
90	847	145	5.6	35	2520	920	0
100	821	161	6.0	38	3040	1510	0
110	790	176	6.4	41	3550	2210	0
120	753	184	6.7	43	3910	2810	0
130	708	189	7.0	45	4180	3210	0

DWARF MISTLETOE INFECTION STARTED AT AGE 69. AND RATING WAS 4.0 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 2
THINNING INTENSITY- SUBSEQUENT- 70.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	880	97	4.5	28	1320	630	0					
70	436	86	6.0	30	1280	630	0	444	11	40	0	0
80	435	107	6.7	34	1800	1300	0					
90	434	126	7.3	37	2350	1890	0					
100	433	144	7.8	40	2890	2470	4900					
100	173	65	8.3	42	1360	1210	4900	260	79	1530	1260	0
110	169	78	9.2	44	1730	1600	5600					
120	165	90	10.0	46	2100	1970	8300					
130	165	105	10.8	48	2550	2400	10300					

DWARF MISTLETOE INFECTION STARTED AT AGE 69. AND RATING WAS 2.0 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 2
THINNING INTENSITY- SUBSEQUENT- 80.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	880	97	4.5	28	1320	630	0					
70	436	86	6.0	30	1280	630	0	444	11	40	0	0
80	435	107	6.7	34	1800	1300	0					
90	434	126	7.3	37	2350	1890	0					
100	433	144	7.8	40	2890	2470	5500					
100	201	74	8.2	41	1540	1350	5500	232	70	1350	1120	0
110	198	87	9.0	44	1930	1770	7300					
120	195	102	9.8	46	2370	2200	9300					
130	192	115	10.5	48	2790	2620	11100					

DWARF MISTLETOE INFECTION STARTED AT AGE 69. AND RATING WAS 2.4 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 2
THINNING INTENSITY- SUBSEQUENT- 90.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	880	97	4.5	28	1320	630	0					
70	436	86	6.0	30	1280	630	0	444	11	40	0	0
80	435	107	6.7	34	1800	1300	0					
90	434	126	7.3	37	2350	1890	0					
100	433	144	7.8	40	2890	2470	6100					
100	230	82	8.1	41	1700	1490	6100	203	62	1190	980	0
110	228	99	8.9	44	2160	1980	8100					
120	226	114	9.6	46	2620	2430	10200					
130	224	127	10.2	48	3050	2860	12000					

DWARF MISTLETOE INFECTION STARTED AT AGE 69. AND RATING WAS 2.6 AT AGE 130.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

YIELDS PER ACRE OF EVEN-AGED STANDS OF LODGEPOLE PINE FOREST ROUTT
SITE INDEX 55 AREA SNYDER 2
THINNING INTENSITY- SUBSEQUENT- 70.

	ENTIRE STAND BEFORE AND AFTER THINNING							PERIODIC INTERMEDIATE CUTS				
STAND AGE (YEARS)	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	880	97	4.5	28	1320	630	0					
70	436	86	6.0	30	1280	630	0	444	11	40	0	0
80	435	107	6.7	34	1800	1300	0					
90	434	126	7.3	37	2350	1890	0					
100	433	144	7.8	40	2890	2470	0					
110	429	161	8.3	43	3450	3060	12600					
120	414	171	8.7	45	3830	3480	14300					
120	414	171	8.7	45	3830	3480	14300	0	0	0	0	0
130	388	175	9.1	47	4080	3750	15600					

DWARF MISTLETOE INFECTION STARTED AT AGE 69. AND RATING WAS 4.1 AT AGE 130.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4-INCH TOP.

BD. FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO 6-INCH TOP.

SNYDER CR II N.P. ROUTT N.F.4/9/75

SAPF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55, 999-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
70	1.3	398	48	4.7	34	811	0	0	0	0
70	1.3	398	48	4.7	34	811	0		0	
80	2.0	394	65	5.5	38	1233	413	5	0	0
90	2.7	390	82	6.2	41	1689	944	10	0	0
100	3.4	376	98	6.9	44	2154	1621	16	0	0
110	4.1	352	108	7.5	46	2506	2069	19	0	0
120	4.8	320	115	8.1	48	2761	2418	20	9957	83
130	5.5	283	114	8.6	49	2832	2557	20	10467	81
140	6.0	243	107	9.0	50	2715	2489	18	10222	73
150	6.0	204	96	9.3	51	2465	2276	15	9402	63
160	6.0	171	86	9.6	51	2226	2063	13	8603	54
170	6.0	143	76	9.9	52	2000	1873	11	7828	46
180	6.0	120	68	10.2	52	1797	1686	9	7081	39

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0

	TREES	MERCHANTABLE VOLUME	SAWTIMBER VOLUME
TOTAL YIELDS	1797	1686	7081

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO A 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

@FIN

POST-TREATMENT PROJECTIONS

SNYDER CR II N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

ENTIRE STAND BEFORE AND AFTER THINNING

STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y
70	1.3	398	48	4.7	34	811	0	0	0	0
70	1.3	398	48	4.7	34	811	0		0	
80	2.0	394	70	5.7	38	1324	528	7	0	0
90	2.7	390	90	6.5	41	1857	1216	14	0	0
100	3.4	376	106	7.2	44	2345	1859	19	0	0
100	3.4	376	106	7.2	44	2345	1859		0	
110	4.1	352	117	7.8	46	2710	2313	21	0	0
120	4.8	320	120	8.3	48	2900	2574	21	10567	88
130	5.5	283	117	8.7	49	2898	2628	20	10767	83
130	5.5	283	117	8.7	49	2898	2628		10767	
140	6.0	243	107	9.0	50	2715	2489	18	10222	73
150	6.0	204	96	9.3	51	2465	2276	15	9402	63
160	6.0	171	86	9.6	51	2226	2063	13	8603	54
160	6.0	171	86	9.6	51	2226	2063		8603	
170	6.0	143	76	9.9	52	2000	1873	11	7828	46
180	6.0	120	68	10.2	52	1797	1686	9	7081	39

PERIODIC INTERMEDIATE CUTS

TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

TOTAL YIELDS 1797 1686 7081

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

SNYDER CR II N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 80.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	1.3	398	48	4.7	34	811	0	0	0	0					
70	1.3	398	48	4.7	34	811	0		0		0	0	0	0	0
80	2.0	394	70	5.7	38	1324	528	7	0	0					
90	2.7	390	90	6.5	41	1857	1216	14	0	0					
100	3.4	376	106	7.2	44	2345	1859	19	0	0					
100	3.4	376	106	7.2	44	2345	1859		0		0	0	0	0	0
110	4.1	352	117	7.8	46	2710	2313	21	0	0					
120	4.8	320	120	8.3	48	2900	2574	21	10567	88					
130	5.5	283	117	8.7	49	2898	2628	20	10767	83					
130	5.5	283	117	8.7	49	2898	2628		10767		0	0	0	0	0
140	6.0	243	107	9.0	50	2715	2489	18	10222	73					
150	6.0	204	96	9.3	51	2465	2276	15	9402	63					
160	6.0	171	86	9.6	51	2226	2063	13	8603	54					
160	6.0	171	86	9.6	51	2226	2063		8603		0	0	0	0	0
170	6.0	143	76	9.9	52	2000	1873	11	7828	46					
180	6.0	120	68	10.2	52	1797	1686	9	7081	39					
						TOTAL YIELDS						1797	1686		7081

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

SNYDER CR II N.P. ROUTT N.F. 4/9/75

S&PF LODG POLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 30-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 90.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	1.3	398	48	4.7	34	811	0	0	0	0					
70	1.3	398	48	4.7	34	811	0		0		0	0	0	0	0
80	2.0	394	70	5.7	38	1324	528	7	0	0					
90	2.7	390	90	6.5	41	1857	1216	14	0	0					
100	3.4	376	106	7.2	44	2345	1859	19	0	0					
100	3.4	376	106	7.2	44	2345	1859		0		0	0	0	0	0
110	4.1	352	117	7.8	46	2710	2313	21	0	0					
120	4.8	320	120	8.3	48	2900	2574	21	10567	88					
130	5.5	283	117	8.7	49	2898	2628	20	10767	83					
130	5.5	283	117	8.7	49	2898	2628		10767		0	0	0	0	0
140	6.0	243	107	9.0	50	2715	2489	18	10222	73					
150	6.0	204	96	9.3	51	2465	2276	15	9402	63					
160	6.0	171	86	9.6	51	2226	2063	13	8603	54					
160	6.0	171	86	9.6	51	2226	2063		8603		0	0	0	0	0
170	6.0	143	76	9.9	52	2000	1873	11	7828	46					
180	6.0	120	68	10.2	52	1797	1686	9	7081	39					
						TOTAL YIELDS						1797		1686	7081

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.

SNYDER CR II N.P. ROUTT N.F. 4/9/75

S&PF LODGEPOLE PINE WITH MISTLETOE- YIELD PER ACRE
SITE INDEX 55. 50-YEAR CUTTING CYCLE
THINNING INTENSITY- INITIAL- 999. SUBSEQUENT- 70.

		ENTIRE STAND BEFORE AND AFTER THINNING									PERIODIC INTERMEDIATE CUTS				
STAND AGE YEARS	DWARF MST RATE	TREES NO.	BASAL AREA SQ.FT.	AVERAGE D.B.H. IN.	AVERAGE HEIGHT FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME C.FT	MERCHANTABLE VOLUME CF/YR	SAWTIMBER VOLUME B.FT	SAWTIMBER VOLUME BF/Y	TREES NO.	BASAL AREA SQ.FT.	TOTAL VOLUME CU.FT.	MERCHANTABLE VOLUME CU.FT.	SAWTIMBER VOLUME BD.FT.
70	1.3	398	48	4.7	34	811	0	0	0	0					
70	1.3	398	48	4.7	34	811	0		0		0	0	0	0	0
80	2.0	394	70	5.7	38	1324	528	7	0	0					
90	2.7	390	90	6.5	41	1857	1216	14	0	0					
100	3.4	376	106	7.2	44	2345	1859	19	0	0					
110	4.1	352	117	7.8	46	2710	2313	21	0	0					
120	4.8	320	120	8.3	48	2900	2574	21	10567	88					
120	4.8	320	120	8.3	48	2900	2574		10567		0	0	0	0	0
130	5.5	283	117	8.7	49	2798	2628	20	10767	83					
140	6.0	243	107	9.0	50	2715	2489	18	10222	73					
150	6.0	204	96	9.3	51	2465	2276	15	9402	63					
160	6.0	171	86	9.6	51	2226	2063	13	8603	54					
170	6.0	143	76	9.9	52	2000	1873	11	7828	46					
170	6.0	143	76	9.9	52	2000	1873		7828		0	0	0	0	0
180	6.0	120	68	10.2	52	1797	1686	9	7081	39					
							TOTAL YIELDS				1797		1686		7081

MINIMUM CUTS FOR INCLUSION IN TOTAL YIELDS-- 500. CUBIC FEET AND 1500. BOARD FEET

DWARF MISTLETOE INFECTION STARTED AT AGE 58. AND RATING WAS 6.0 AT AGE 180.

NOTE THAT NOT ALL SCHEDULED THINNINGS WERE POSSIBLE.

MERCH. CU. FT. - TREES 6.0 INCHES D.B.H. AND LARGER TO 4.0-INCH TOP.

BD.FT. - TREES 6.5 INCHES D.B.H. AND LARGER TO A 6-INCH TOP.